

## **AMENDMENTS TO THE CLAIMS**

*This listing of claims will replace all prior versions and listings of claims in the application:*

### **Listing of Claims:**

What is Claimed is:

1. (Currently amended) Gas chromatograph for the analysis of a sample, having a feed arrangement  $[(3-6)]$  for feeding the sample, an open tubular capillary column  $[(2)]$  for separating the components of the sample, temperature control means  $[(8-15)]$  for controlling the temperature of the column  $[(2)]$ , and a detector  $[(1)]$  for detecting the separated components of the sample, wherein said column  $[(2)]$  comprises a bundle of open tubular capillaries, characterized in that said open tubular capillaries  $[(16)]$  have gas permeable walls comprising a polymer membrane  $[(19)]$ .
2. (Currently amended) Gas chromatograph according to claim 1, characterized in that  $[[it]]$  the gas chromatograph is a hand-held portable gas chromatograph.
3. (Currently amended) Gas chromatograph according to claim  $[[3]]$  1 characterized in that said  $[[wall]]$  walls  $[[has]]$  have an inner layer of a selectively gas permeable polymer membrane  $[(19)]$  and an outer layer of a porous polymer support  $[(18)]$ .
4. (Currently amended) Gas chromatograph according to claim 1 characterized in that said

bundle has between 10 and 10000 pieces of open tubular capillaries [(16)].

5. (Currently amended) Gas chromatograph according to claim 1, characterized in that said open tubular capillaries [(16)] have a length of 10 to 100 cm and an inner diameter of 10 to 1000  $\mu\text{m}$ .

6. (Currently amended) Gas chromatograph according to claim 1, characterized in that said bundle contains 100 to 4000 pieces of said open tubular capillaries [(16)].

7. (Currently amended) Gas chromatograph according to claim 1, characterized in that the inner diameter of the tubular capillaries [(16)] is from 50 to 1000  $\mu\text{m}$ .

8. (Currently amended) Gas chromatograph according to claim 1, characterized in that said open tubular capillaries [(16)] have open space between them.

9. (Currently amended) Gas chromatograph according to claim 1, characterized in that said column [(2)] has a cover [(10, 14)] surrounding said bundle.

10. (Currently amended) Gas chromatograph according to claim 8, characterized in that said temperature control means [(8-15)] include a heating medium [(9)] arranged to flow [(11)] through said open space between said capillaries [(16)].

11. (Currently amended) Gas chromatograph according to claim 10, characterized in that said temperature control means [(8-15)] include said cover [(14)] which is made of heat insulating material and has inlet and outlet openings [(8)] for allowing said heating medium [(9)] to

flow through said open space between said capillaries [(16)].

12. (Currently amended) Gas chromatograph according to claim [(1)] 10, characterized in that said temperature control means [(8-15)] include a thermostat heater [(13)] for controlling the temperature of said heating medium [(9)].

13. (Currently amended) Gas chromatograph according to claim 12, characterized in that said temperature control means [(8-15)] include a pump [(12)] and a hose or tube [(15)] for pumping and conveying said heating medium [(9)] between said thermostat heater [(13)] and the open space between said capillaries [(16)].

14. (Currently amended) Gas chromatograph according to claim 1, characterized in that said feed arrangement [(3-6)] comprises a filter [(3)] for absorbing vapour from the sample before it enters the column [(2)].

15. (Currently amended) Gas chromatograph according to claim 1, characterized in that said feed arrangement [(3-6)] comprises a gas inlet [(5)] for letting the sample into said column [(2)].

16. (Currently amended) Gas chromatograph according to claim 14, characterized in that said feed arrangement [(3-6)] comprises a valve [(4)] for directly directing the sample to said column (2) ~~alternatively directly~~ or alternatively through said filter [(3)].

17. (Currently amended) Gas chromatograph according to claim 1, characterized in that said feed arrangement [(3-6)] comprises a valve [(6)] for directing the sample through said column [(2)] or alternatively directly to said detector [(1)].

18. (Currently amended) Gas chromatograph according to claim 1, characterized in that said detector [(1)] is an ion mobility spectrometer (IMS).

19. (Currently amended) Gas chromatograph according to claim 18, characterized in that the ion mobility spectrometer [(IMS)] is a hyphenated multisensor ion mobility spectrometer [(IMS)] designed for direct flow-through of the sample.

20. (Currently amended) Gas chromatograph according to claim 19, characterized in that said detector [(1)] employs semiconductor sensors, electroacoustic gas sensors or sensor arrays thereof, or humidity and temperature sensors, or a combination of any of those, in which case at least one sensor is said ion mobility spectrometer [(IMS)].

21. (Cancelled)

22. (Previously presented) Gas chromatograph according to claim 1, characterized in that said gas chromatograph is a portable and/or hand-held gas analyzer.